

Technological Changes Contribute to Rise in Obesity

By any measure, more Americans are heavier today than ever before. Nearly 2 out of 3 adults now meet or exceed the clinical definition of overweight, and 3 out of 10 children are overweight or at risk for overweight. Especially alarming to public health experts is the rapid weight gain witnessed since the mid-1970s. Since then, obesity has doubled among adults and tripled among adolescent boys and girls.

People gain weight when energy consumption (or calories) from food consistently exceeds energy expended on bodily functions and physical activity. Therefore, the current obesity epidemic must be due to some combination of people eating more and moving less. "Environmental" changes in recent decades that have been linked to obesity include more fast foods, bigger portion sizes, and more sedentary lifestyles. Still, why are more people making the choices that lead to weight gain and obesity?

Economists are attempting to answer this by examining the incentives and disincentives people face when making food and physical activity choices. In earlier agricultural and industrial times, work was strenuous and people, in effect, were paid to exercise (that is, undertake work). Today, physical labor has become more rare and people pay to undertake—and budget time for—exercise. Inexpensive alternative uses for leisure time, such as TV or video games, only compound the problem.

Technological progress has also altered incentives for the type and amount of food people eat. A more efficient agricultural system has cut food prices, especially of calorie-dense foods. Advances in food processing and packaging have introduced a multitude of ready-to-eat foods, available virtually anywhere and at any time. This has reduced the time "cost" of food preparation and consumption. People have responded to these incentives by increasing the quantity and variety of foods they consume.

At the same time, technology-driven progress in medical and epidemiological research warns us of the serious health consequences of obesity. These warnings should act as a disincentive against choices that lead to excess body weight, but apparently have not. By studying how people evaluate long-term health consequences when making short-term food and activity choices, economists hope to better understand the causes behind the increase in obesity. *W*

Jayachandran N. Variyam, jvariya@ers.usda.gov

This finding is drawn from ...

The Economics of Obesity: A Report on the Workshop Held at USDA's Economic Research Service, by Tomas Philipson, Carolanne Dai, Lorens Helmchen, and Jayachandran N. Variyam, E-FAN-04-004, USDA/ERS, May 2004, available at: www.ers.usda.gov/publications/efan04004/

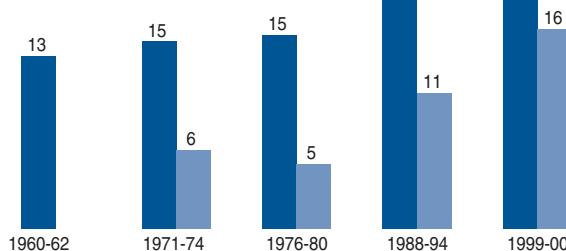


Corbis

Obesity has risen rapidly since the mid-1970s

Percent obese/overweight

■ Percent of adults who are obese
■ Percent of adolescents who are overweight



Note: Data not available for adolescents in 1960-62.

Sources: K.M. Flegal, M.D. Carroll, C.L. Ogden, and C.L. Johnson "Prevalence and Trends in Obesity Among US Adults, 1999-2000," and C.L. Ogden, K.M. Flegal, M.D. Carroll, and C.L. Johnson, "Prevalence and Trends in Overweight Among US Children and Adolescents, 1999-2000," both in the *Journal of the American Medical Association*, Vol. 288, No. 14, October 9, 2002.